STRUCTURE THERAPEUTICS

GSBR-1290
Obesity Topline Data Presentation

June 2024

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This presentation contains “forward-looking statements” within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact are statements that could be deemed forward-looking statements, including, without limitation, statements concerning the Company’s future plans and prospects, any expectations regarding the safety, efficacy, tolerability and chemistry, manufacturing and controls and scalability of GSBR-1290 under development based on the topline clinical data from the Phase 2a study of GSBR-1290 in patients with type 2 diabetes mellitus (T2DM) and obesity, including the potential for maintained or increased efficacy results with longer duration of treatment, the ability of GSBR-1290 to treat T2DM, obesity, chronic weight management or related indications, the planned initiation and study design of the Company's Phase 2b study for GSBR-1290 in patients with obesity and the timing thereof; the update from the capsule to tablet formulation bridging optimization study of GSBR-1290; the planned timing to submit an investigational new drug application to support a Phase 2b study for chronic weight management for GSBR-1290; the planned timing of the Company's data results and continued development of GSBR-1290 and next generation combination GLP-1R candidates; the Company’s anticipated milestones; the anticipated market opportunity for GSBR-1290 and oral small molecules and the Company’s expected cash runway until 2026. In addition, when or if used in this presentation, the words “may,” “could,” “should,” “anticipate,” “believe,” “estimate,” “expect,” “intend,” “plan,” “predict” and similar expressions and their variants, as they relate to the Company may identify forward-looking statements. Forward-looking statements are neither historical facts nor assurances of future performance. Although the Company believes the expectations reflected in such forward-looking statements are reasonable, the Company can give no assurance that such expectations will prove to be correct. 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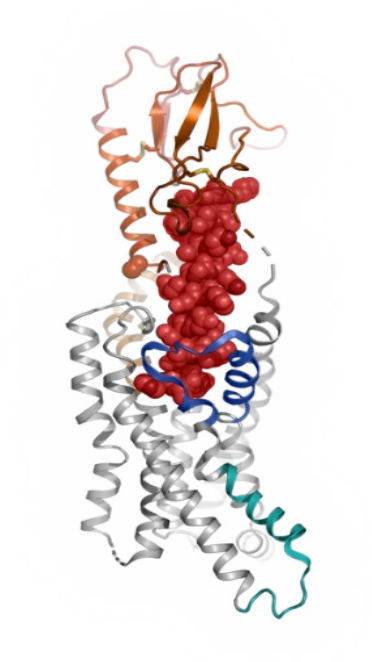
Agenda

Opening Remarks and Overview	**Raymond Stevens, Ph.D.** *Chief Executive Officer*
GSBR-1290 Obesity Topline Data • Efficacy Summary • Safety and Tolerability Summary • Pharmacokinetic (PK) summary	**Blai Coll, M.D., Ph.D.** *VP Clinical Development*
GSBR-1290 Planned Next Steps • Phase 2b 36-week Obesity study	**Blai Coll, M.D., Ph.D.**
GSBR-1290 Opportunity & **Building a Leading Oral Small Molecule Portfolio**	**Raymond Stevens, Ph.D.**
Q&A	**Raymond Stevens, Ph.D.,** *CEO* **Blai Coll, M.D., Ph.D.,** *VP Clinical Development* **Mark Bach, M.D., Ph.D.,** *Chief Medical Officer* **Xichen Lin, Ph.D.,** *Chief Scientific Officer* **Jun Yoon**, *Chief Financial Officer*

Our Mission is to Make Medicines More Accessible to All



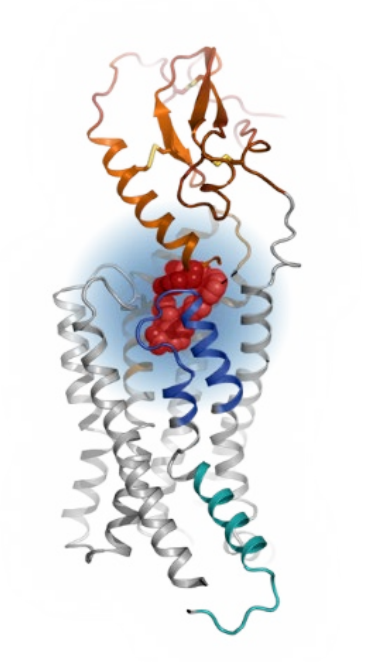
PEPTIDE OR BIOLOGIC

MEDICINES
ACCESSIBLE FOR ALL

STRUCTURE THERAPEUTICS
Oral
Small
Molecules

Programs/
Targets

- GLP-1R Selective
- Amylin
- GIPR
- GCGR
- Apelin/APJR
- LPA1R



ORAL SMALL MOLECULE

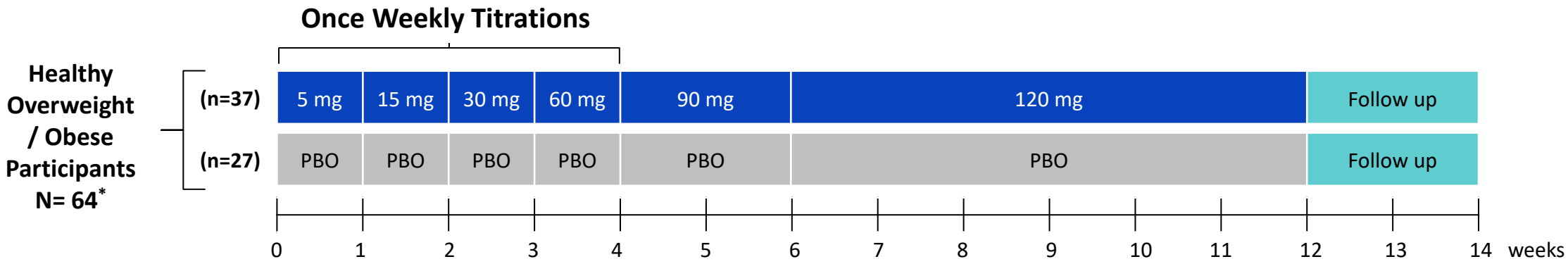
We believe GSBR-1290 Obesity Data Position for Potential Best-in-Class Oral GLP-1RA

Best-in-Class Criteria	GSBR-1290 Performance through Phase 2a
Competitive Efficacy	**6.2 – 6.9% placebo-adjusted weight loss at 12 weeks**
Safety	**No liver liability** Large safety window – potential to go higher in dose
Tolerability	**5 – 11% AE-related study discontinuations**
Once-Daily Dosing	**PK supports QD dosing** No fasting requirement
Manufacturable at Scale and Low COGS	**Scalable to potentially serve >120 million patients** GMP batches for Phase 2b studies completed

GSBR-1290 Obesity Topline Results

Efficacy Summary

GSBR-1290 Phase 2a Study Design in Overweight or Obese Participants



Key Eligibility Criteria:

- Healthy overweight/obese adult men and women
- BMI ≥27.0 and ≤40.0 kg/m2
- HbA1c ≤6.5%
- Age ≥18 and ≤75 years

Primary Endpoint:

- Safety and tolerability

Secondary Endpoint:

- Change in body weight (%) from baseline to Week 12**

* *Cohort of 24 participants added as replacements*

** *Analysis based on the primary efficacy estimand*

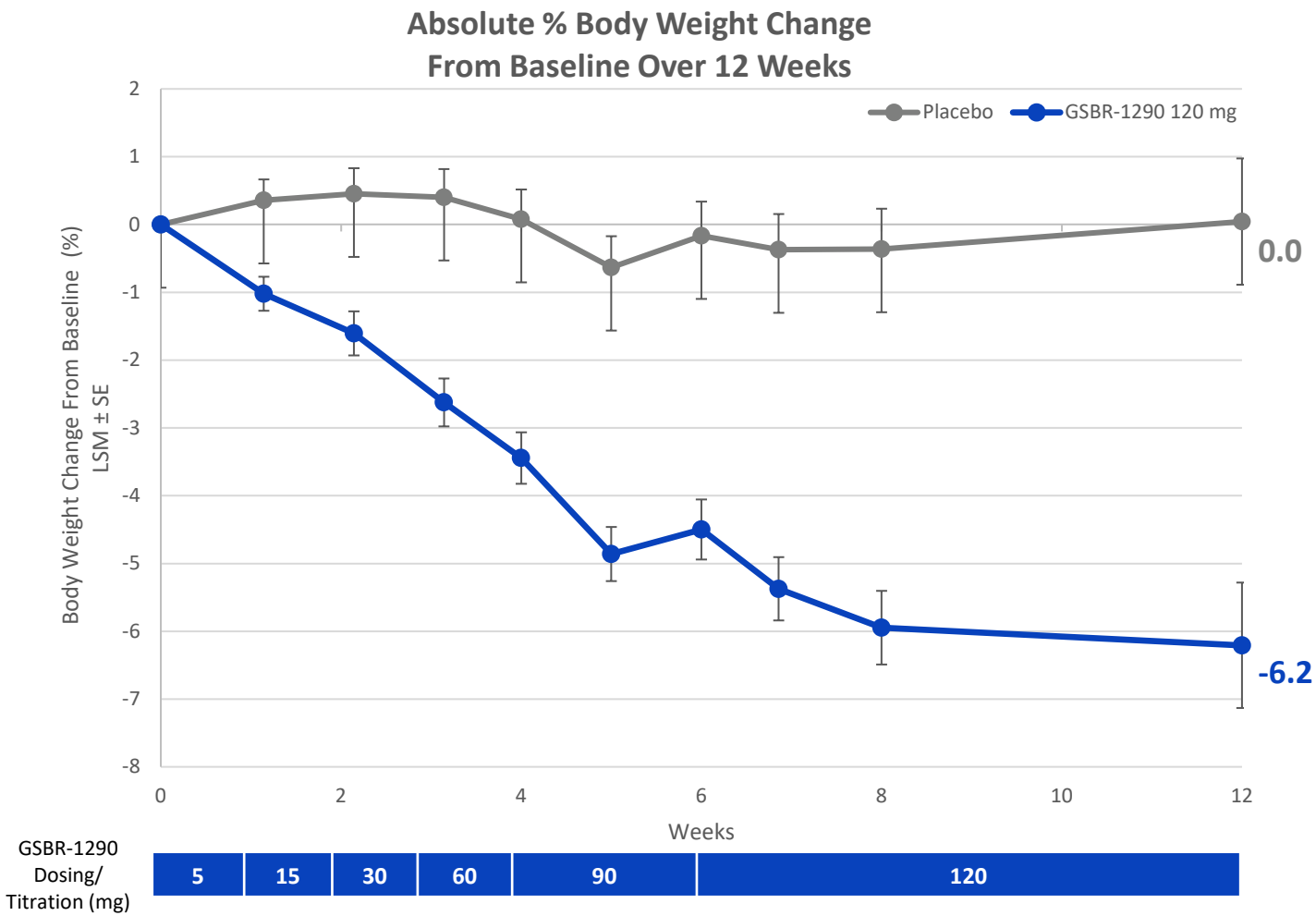
GSBR-1290 Phase 2a Study Baseline Characteristics

Phase 2a Obesity Study (12 week)
N=64, Randomized
GSBR-1290 capsule

Characteristics Mean (SD) or N (%)	120 mg (N=37)	Placebo (N=27)
Age, years	45.1 (14.3)	44.7 (12.0)
Sex, female, N (%)	20 (54.1)	11 (40.7)
Hispanic or Latino, N (%)	16 (43.2)	13 (48.1)
Weight, kg	90.2 (14.3)	91.5 (14.4)
BMI, kg/m^2	31.5 (3.2)	31.6 (3.0)
HbA1c, %	5.5 (0.3)	5.5 (0.4)

No significant differences in baseline characteristics between original and replacement cohorts

GSBR-1290 Phase 2a Results:
Significant Weight Loss Observed at 12 Weeks



- **6.2% placebo-adjusted weight loss observed after 12 weeks**
- **Statistically significant weight reduction over 12 weeks with a clear separation compared to placebo**

	GSBR-1290 120 mg
% Change in Body Weight, placebo-adjusted	-6.2
95% Confidence Interval (CI)	-8.9, -3.6
P-value vs placebo*	<0.0001

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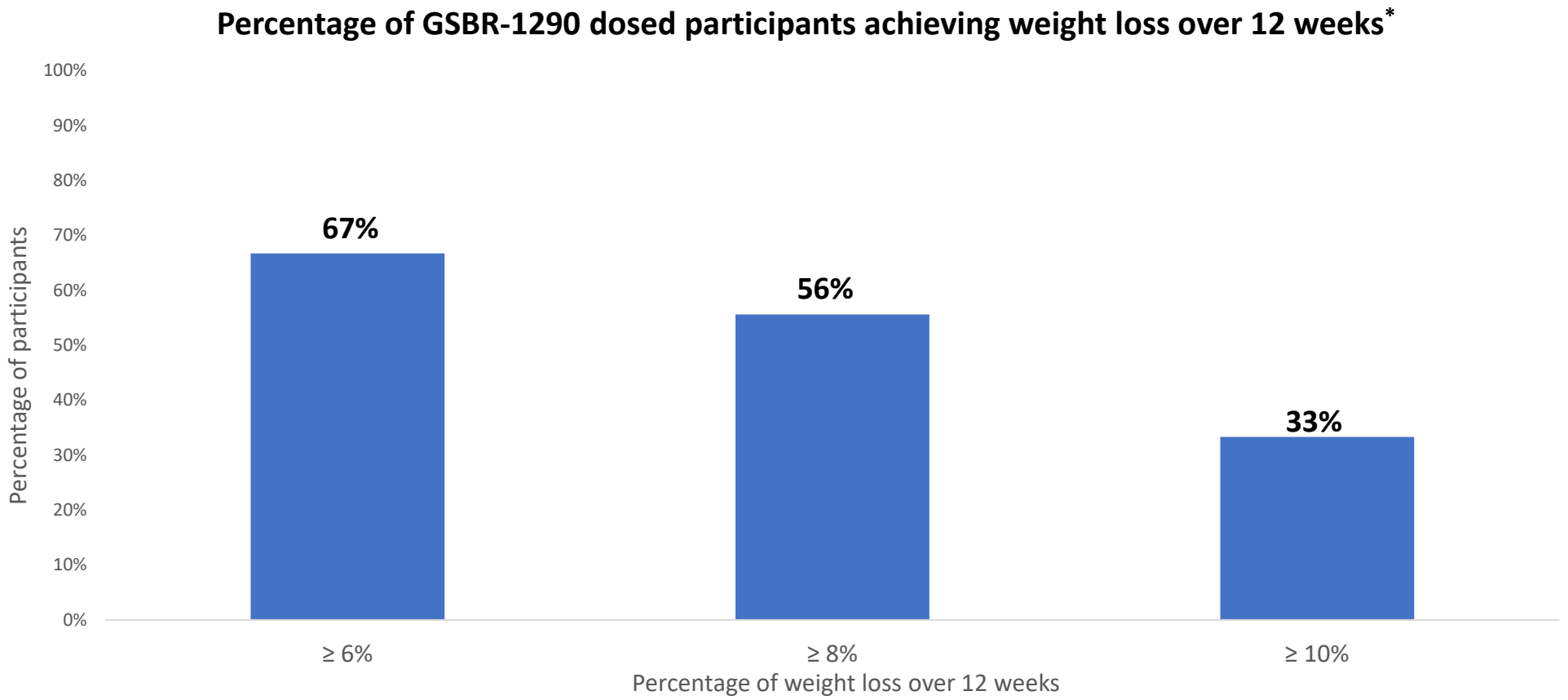
* *Least-Squares Means, CI and p value from Mixed Model for Repeated Measures.*

GSBR-1290 Phase 2a Results:

Two Thirds of Participants Reported at least 6% Weight Loss



- **67% participants receiving GSBR-1290 achieved at least a 6% weight loss**
- **33% achieved at least a 10% weight loss**
- **0% of participants receiving placebo achieved at least a 5% weight loss**

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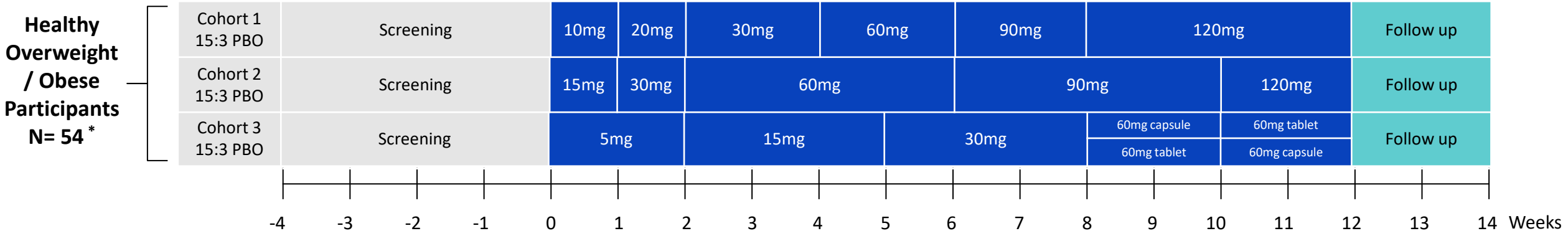
*Analysis based on the primary efficacy estimand

GSBR-1290 Capsule to Tablet PK Study Design



Key Eligibility Criteria:

- Healthy overweight/obese adult men and women
- BMI ≥27.0 and ≤40.0 kg/m^2
- Age ≥18 and ≤75 years

Objectives:

- Safety and tolerability of the tablet formulation, with different starting doses and titration schemes
- Assess comparability of capsule and tablet at 60 mg
- Exploratory effects of GSBR-1290 on change from baseline in body weight **

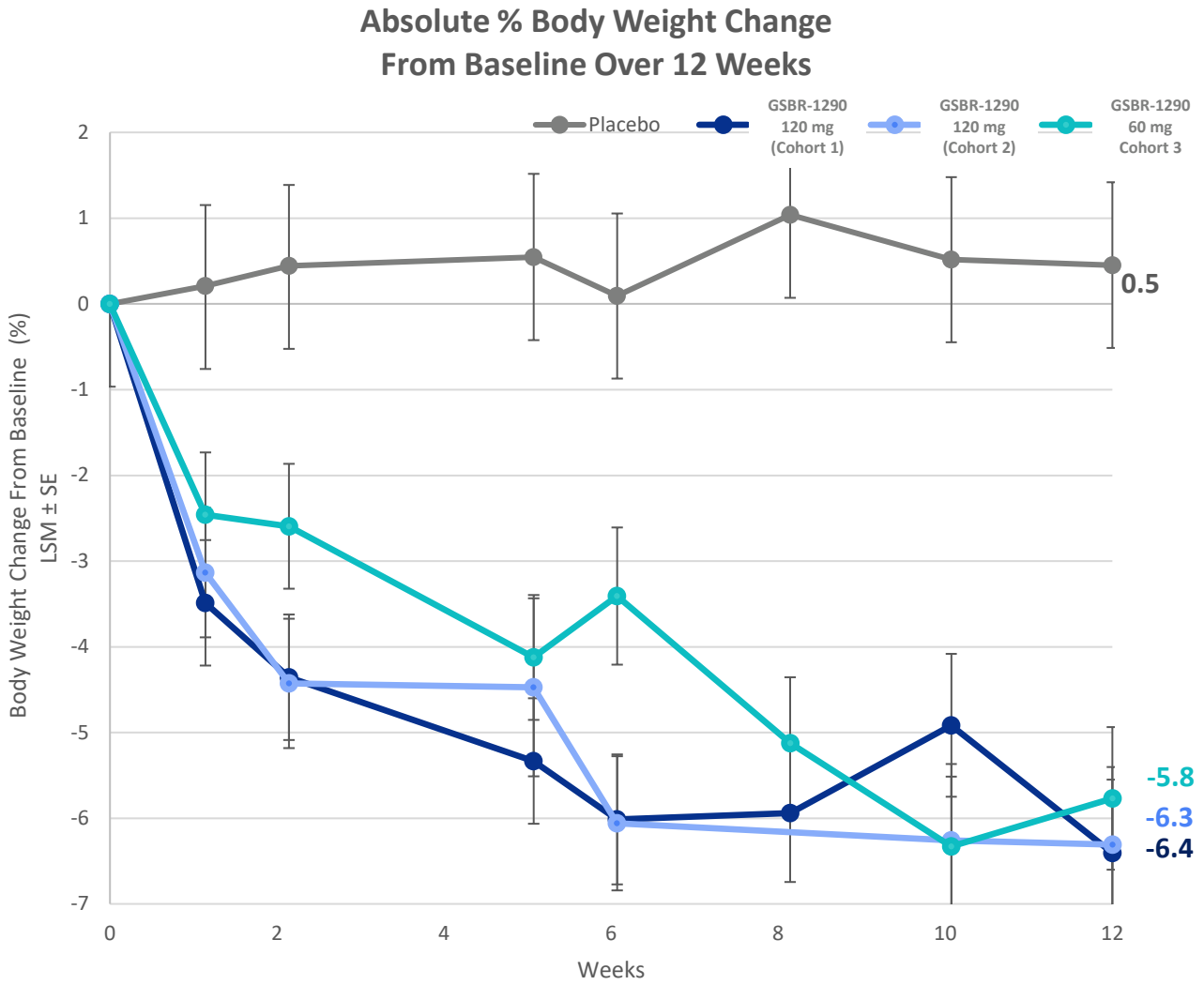
Key baseline demographics similar across cohorts

Mean baseline BMI of 30 kg/m^2

* *Tablet formulation used with the exception of Cohort 3 crossover Weeks 8-12*

** *Analysis based on the primary efficacy estimand*

GSBR-1290 Capsule to Tablet PK Study Results:
Significant Weight Loss Observed with Tablet Formulation



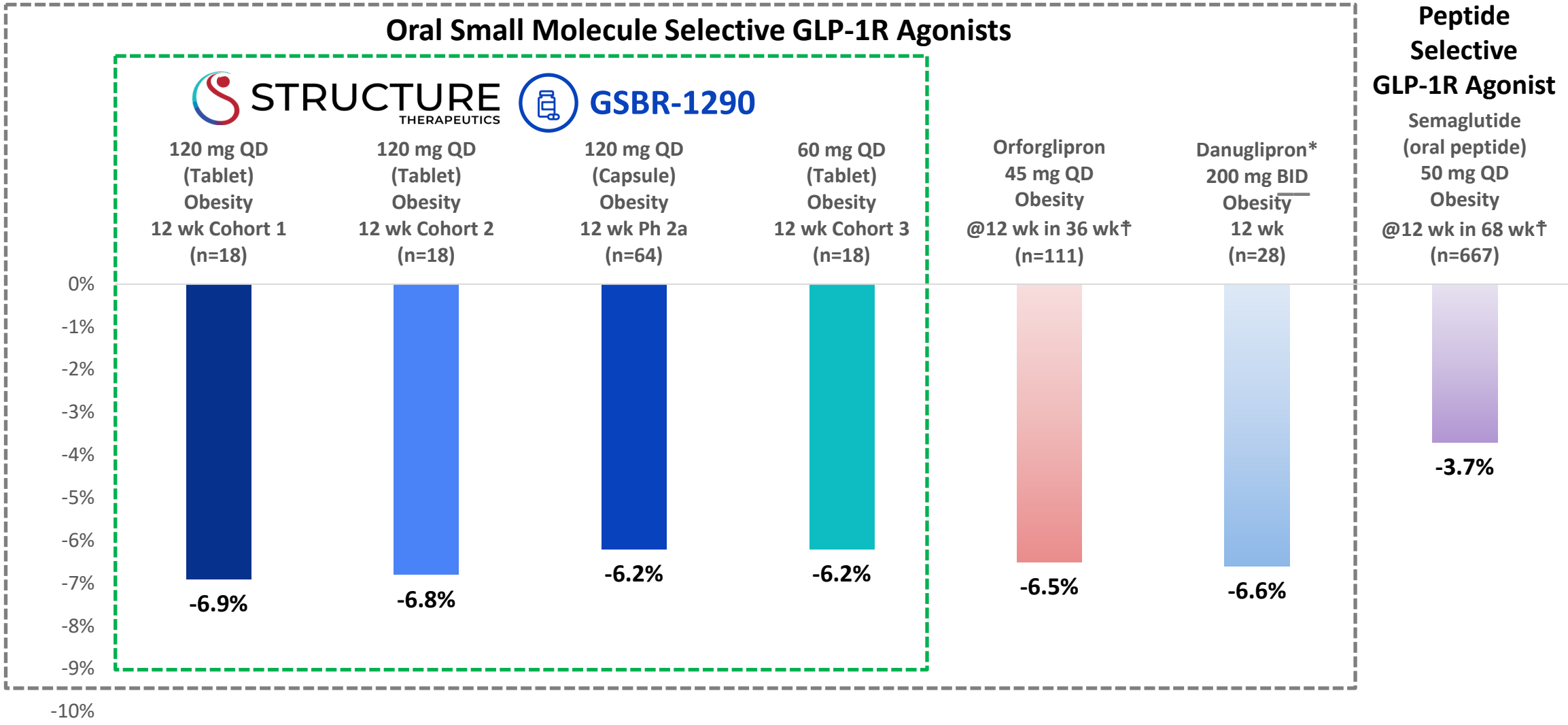
- <u>6.2% to 6.9% placebo-adjusted</u> weight loss observed after 12 weeks
- Statistically significant weight reduction at 12 weeks for both 60 mg and 120 mg doses

	GSBR-1290 120 mg (C1)	GSBR-1290 120 mg (C2)	GSBR-1290 60 mg (C3)
% Change in Body Weight, <u>placebo-adjusted</u>	-6.9	-6.8	-6.2
95% CI	-9.4, -4.3	-9.4, -4.2	-8.8, -3.7
P-value vs placebo*	<0.0001	<0.0001	<0.0001

* *LSM, CI and p value from Mixed Model for Repeated Measures.*

GSBR-1290 Obesity Data Compare Favorably to for Other Oral Selective GLP-1RAs

Cross trial comparison of 12 Week Placebo-adjusted % Change in Body Weight



Sample size indicate total number of subjects enrolled study drug and placebo

*†Indicates approximate 12 week weight loss, extrapolated by the Company using data from 36 week study (Orforglipron, NEJM 2023) and 68 week study (Semaglutide, The Lancet 2023). * EASD 2022: OP#588*

***No head-to-head study has been conducted evaluating GSBR-1290 against the other product candidates included herein. Differences exist between study designs and conditions, and caution should be exercised when comparing data across studies.*

GSBR-1290 Obesity Topline Results

Safety and Tolerability

GSBR-1290 Phase 2a Study Participant Disposition

Phase 2a Obesity Study (12 week)
N=64, Randomized
GSBR-1290 capsule

Number of Participants Reporting N (%)	120mg (N=37)	Placebo (N=27)
Discontinued study not due to AEs	**5 (13.5)**	**1 (3.7)**
Discontinued study due to AEs related to treatment	**2 (5.4)***	**0**
Dose discontinuation, down titrated or hold due to AEs		
Dose discontinuation	2 (5.4)*	0
Dose reduced	15 (40.5)	0
Dose temporarily on hold	2 (5.4)	0
Completed study	**30 (81.1)**	**26 (96.3)**

- **Low (5.4%) AE-related study discontinuations**

*Same two participants, both with GI-related AEs

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GSBR-1290 Phase 2a Study: Safety and Tolerability

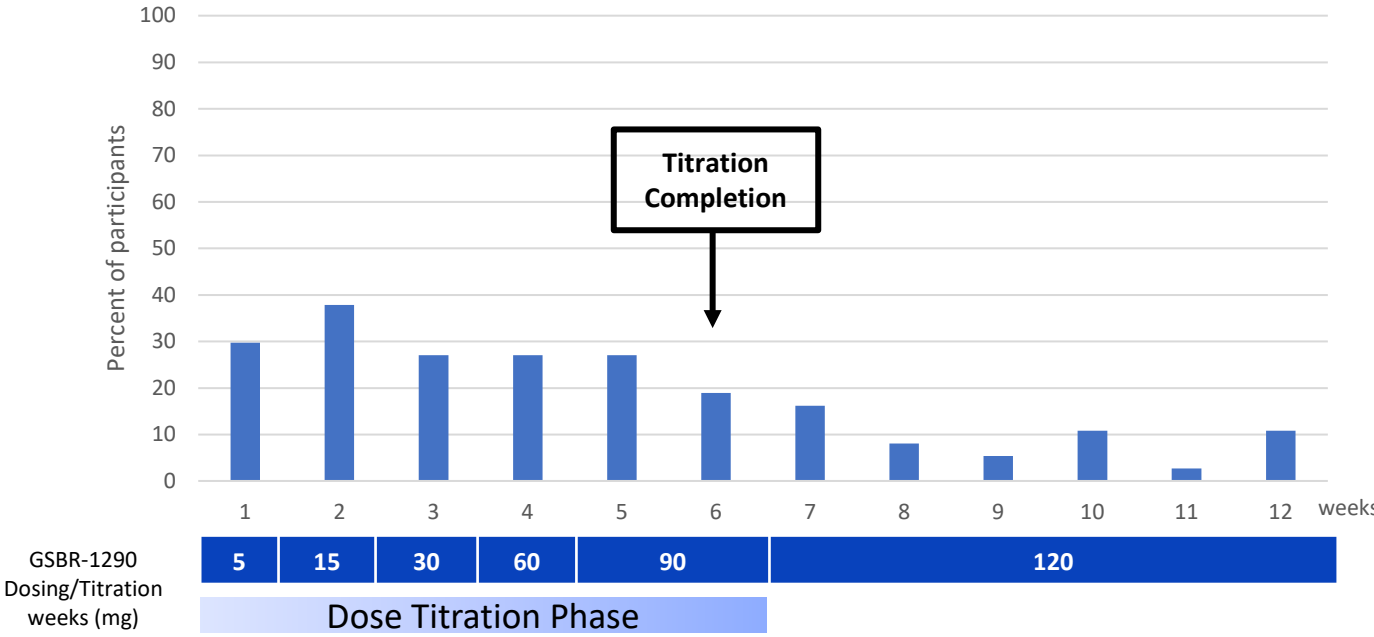
Gastrointestinal-related AEs Most Common in Rapid 12 Week Titration

GI Tolerability Summary

Participants with at least one event during 12 week period, N (%)	120 mg (N=37)	Placebo (N=27)
Serious Adverse Events	0	0
Nausea Mild Moderate Severe	33 (89.2) 15 (40.5) 18 (48.6) 0	3 (11.1) 3 (11.1) 0 0
Vomiting	23 (62.2)	1 (3.7)
Constipation	16 (43.2)	4 (14.8)
Decreased appetite	15 (40.5)	3 (11.1)

Incidence of Nausea Over Time

(at least one event during 12 week period)



- All AEs mild or moderate
- No serious adverse events

- Incidence of nausea decreased over time
- Similar attenuation with other GI-AEs

GSBR-1290 Obesity Studies: Safety and Tolerability

Liver Profile

Number of Participants Reporting N (%)	Phase 2a Obesity Study (GSBR-1290 capsule) 120 mg (N=37)	Phase 2a Obesity Study (GSBR-1290 capsule) Placebo (N=27)	Capsule to Tablet PK Study (GSBR-1290 tablet) 120 mg (C1, C2) (N=30)	Capsule to Tablet PK Study (GSBR-1290 tablet) 60 mg (C3) (N=15)	Capsule to Tablet PK Study (GSBR-1290 tablet) Placebo (N=9)
Serious Adverse Events	0	0	0	0	0
Drug Induced Liver Injury (DILI)	0	0	0	0	0
Hepatic enzymes increased*	0	0	0	0	0
Mean Change from Baseline to Week 12					
ALT**, (U/L) Mean (SD)	-2.2 (11.7)	-1.4 (8.1)	-0.9 to 2.6	1.6 (11.2)	-3.0 (5.2)
AST**, (U/L) Mean (SD)	-1.4 (7.2)	-3.0 (11.5)	1.1 to 2.5	-1.4 (5.7)	-1.7 (3.4)
3 or > ULN in ALT or AST	1 (2.7)[1]	1 (3.7) [2]	1 (3.3)[3]	0	0
5 or > ULN in ALT or AST	0	0	0	0	0
10 or > ULN in ALT or AST	0	0	0	0	0

- **No DILI or permanent elevations in liver enzymes**
- **No study discontinuations related to liver function**

[1] Female participant with a sporadic increase in ALT (3.9xULN) and AST (2xULN) at day 44, and returned to normal at day 48 without stopping study drug
[2] Male participant with fluctuations in ALT/AST throughout the study with a peak at day 30 (both ALT and AST @3xULN) associated with an increase in creatinine kinase in the context of a viral syndrome
[3] Male participant with an isolated increase in AST (4XULN) at day 84 associated with an increase in creatinine kinase

Preferred term in the TEAE reported in the safety database
** Alanine aminotransferase (ALT) and Aspartate aminotransferase (AST)*

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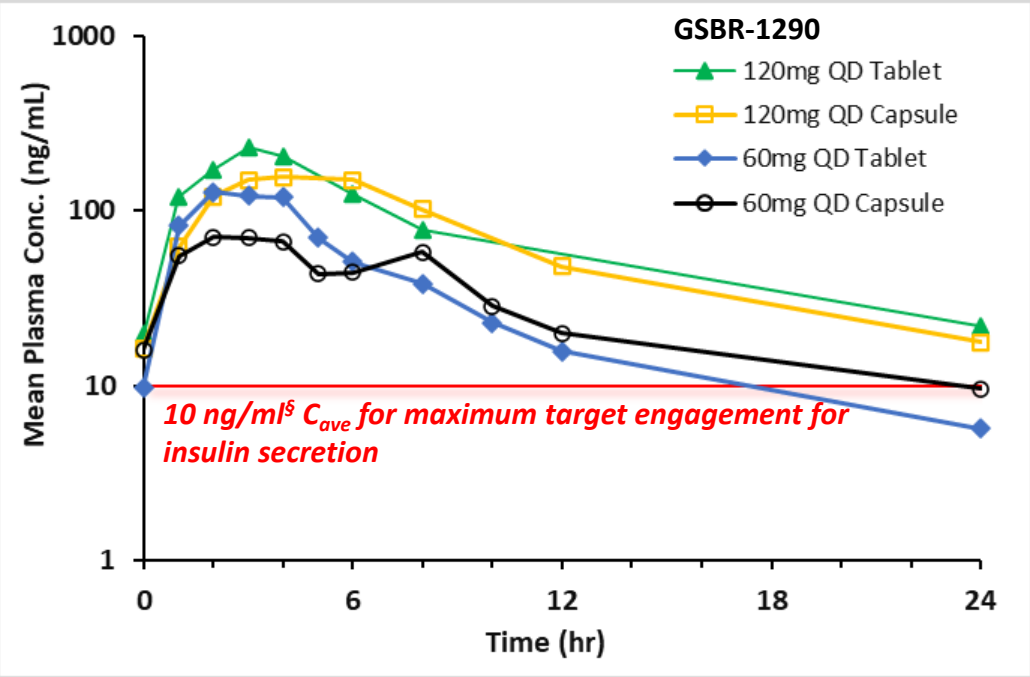
GSBR-1290

PK Summary and Comparability of Capsule to Tablet Formulation

GSBR-1290 Overall Properties Confirm Once Daily (QD) Dosing



Geometric mean (% CV) plasma PK parameters across studies

	Phase 2a Study Obesity	Capsule to Tablet PK Study (GSBR-1290 capsule to tablet)		
	120 mg Capsule	120 mg (C1, C2) Tablet	60 mg (C3) Tablet	60 mg Capsule
AUC0-tau (ng*h/mL)	1370 (60.0)	1500 (60.6)	654 (93.8)	624 (60.9)
C_{max},ss (ng/mL)	190 (92.8)	192 (104)	101 (170)	79.2 (105)
T_{max}, ss* (h)	6.0 (2.0–23.9)	3.5 (0.9 – 24.1)	3.5 (2.0-24.0)	8.0 (2.0-23.9)
C_{Trough} (ng/mL)**	11.0 (128)	14.1 (120)	3.8 (134)	5.4 (174)
$T_{½}$ el (h)	5.3 (36.8) ***	8.5 (24.5)	4.7 (28.8)	6.5 (45.5)

** Median (min-max) ** At 24h post-dose *** The $T_{1/2}$ at Day 49 in the capsule study @120 mg does not capture samples beyond 24h (half-life value might be underestimated)*

Molecular and Pharmacokinetic Properties

Efficacy

- ✓ **Full agonist** and **minimal β-arrestin** signal
- ✓ **AUC driven efficacy** and favorable free drug concentration
- ✓ **Generally proportional exposure** between 60 and 120 mg doses
- ✓ Plasma concentration at **24 hours above 10 ng/mL§** for 120 mg

Safety and Tolerability

- ✓ **Large safety window** with minimal tissue accumulation based on non-clinical data
- ✓ Different **formulations** underway to modulate PK characteristics

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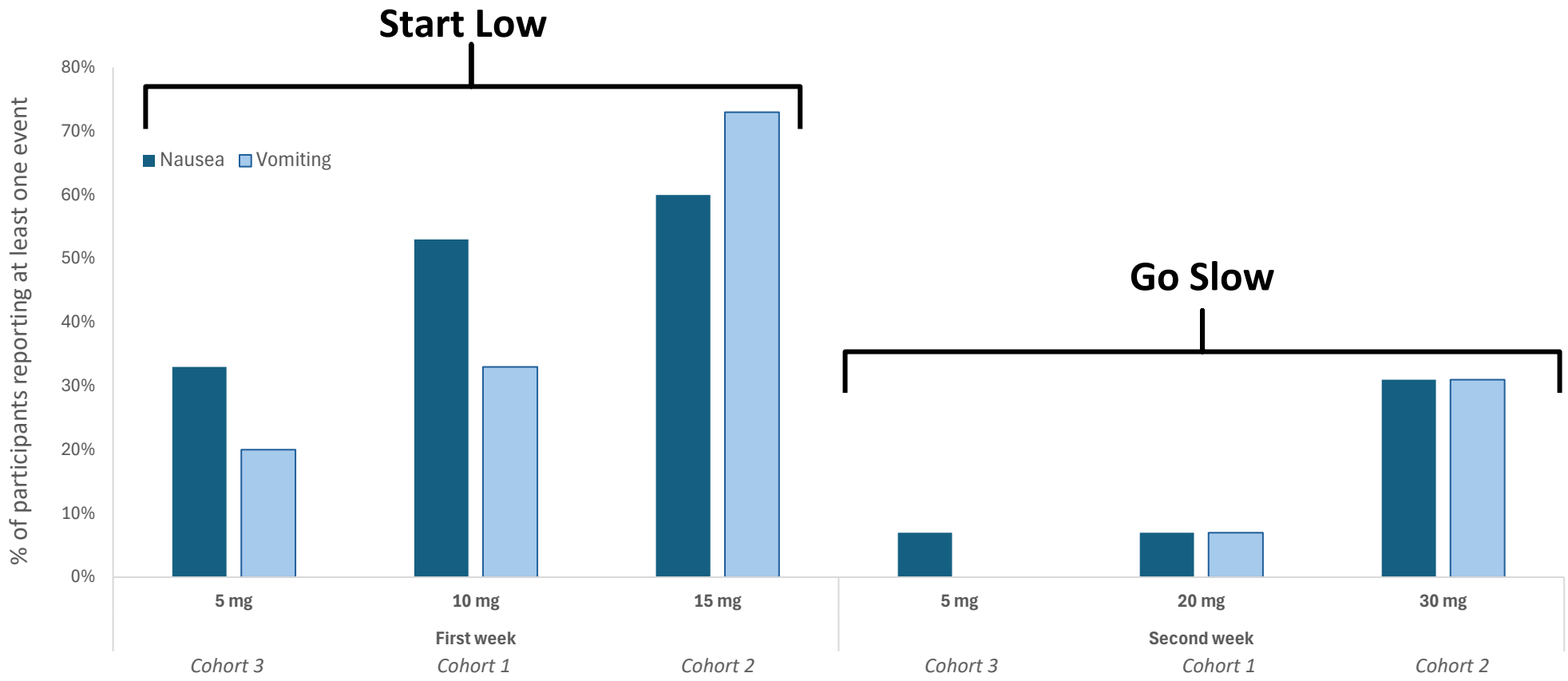
§ 10 ng/mL C_{ave} correlated with maximum insulin secretion in NHP studies

GSBR-1290 Next Steps and Summary

Phase 2b Obesity Study (36 week)

Capsule to Tablet PK Study Key Learnings Inform Phase 2b Study Design



Week 1	Week 2
Participants receiving 5 mg associated with lowest incidence of GI events	Improved tolerability with slower titration

Low (11%) AE-related study discontinuations in Capsule to Tablet PK Study

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GSBR-1290 Phase 2b Obesity Study (36 weeks) Anticipated to Initiate in Q4 2024

~ 300 participants

Obesity: BMI ≥ 30

Overweight: BMI ≥ 27 with comorbidity

R

Phase 2b Dose Selection on going

GSBR-1290
Multiple maintenance doses

Start Low, Go Slow

- **Lower 5mg** starting dose
- **Slower 4 week** titration to optimize tolerability
- Preclinical and clinical safety data enables ability to **increase dose >120mg**

Placebo

Primary Endpoint:

- Mean % weight change at 36 weeks

Secondary Endpoints:

- % of participants with ≥ 5, 10, 15% weight reduction
- Other parameters: changes in waist circumference, blood lipids, blood pressure
- CV biomarkers

- **On track to submit IND to FDA to support study for chronic weight management in Q3 2024**
- **On track to initiate Phase 2b study (36 week) in Q4 2024**

New GSBR-1290 Obesity Data Demonstrate Potential Best-in-Class Profile

Competitive Efficacy Results and Once Daily Dosing as an Oral Small Molecule

EFFICACY RESULTS

- ✓ **6.2%** placebo-adjusted weight loss at **12 weeks** in Phase 2a Obesity
- ✓ **6.2 to 6.9%** placebo-adjusted weight loss at **12 weeks** with new **tablet** formulation
- ✓ Proportional PK exposure and **once daily dosing**

SAFETY RESULTS

- ✓ More than **200** participants exposed to **GSBR-1290**, up to **12 weeks**
- ✓ Safety profile consistent with the large **safety margin** seen in GLP-tox studies
- ✓ **No DILI or discontinuations** due to liver function

TOLERABILITY RESULTS

- ✓ **Low (5 – 11%)** AE-related study **discontinuations**
- ✓ **Attenuation** of GI-related AEs over time

- *Key Learnings: Lower starting dose, monthly titration, tablet formulation*
- *Potential to go higher in dosing for the 36-week Phase 2b Obesity Study; Expected to Start in Q4 2024*

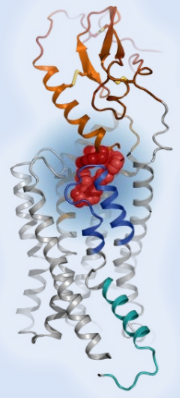
Foundational Backbone Asset in Oral Small Molecule Metabolic Portfolio

GSBR-1290 Opportunity

12-week Data Positions GSBR-1290 as Potential Best-in-Class Oral GLP-1RA

Original GLP-1RA Oral Small Molecule Aspirational Target Product Profile

- ✓ Highly potent, non-peptide, full GLP-1R agonist with minimal β-arrestin signaling engagement
- ✓ Weight loss comparable to injectable GLP-1R peptides
- ✓ Designed for ~24 hour drug exposure to enable QD dosing in a large patient population
- ✓ Clean 6 and 9 month GLP-tox studies with high safety margin, rat NOAEL 1000 mg/kg
- ✓ Ability to modulate C_{max} and tolerability with formulation technologies
- ✓ Scalability in commercial manufacturing



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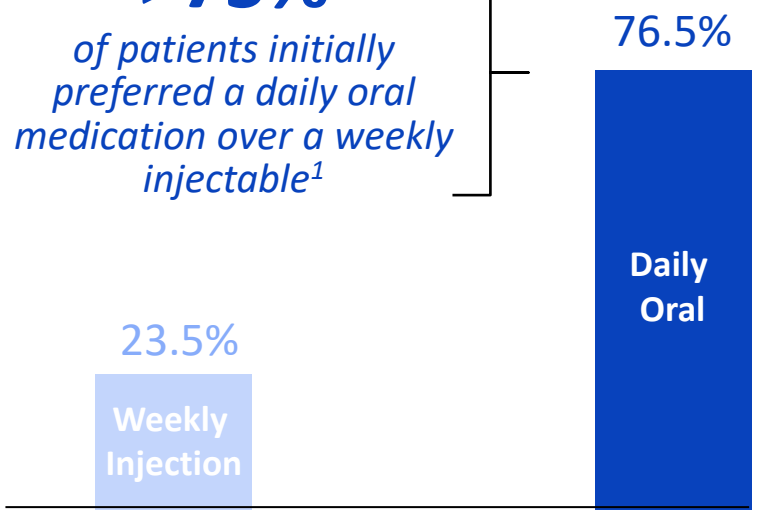
GSBR-1290

More than 800 million patients globally can benefit with GLP-1RAs

>75%

of patients initially preferred a daily oral medication over a weekly injectable[1]



Boye et al, 2021 Diabetes Obesity Metabolism https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7839441/

Oral small molecules could potentially help unlock a > $100 billion GLP-1RA market opportunity

We are Committed to Developing Oral Small Molecules to Meet the Unmet Needs of a Very Large Global Obesity Patient Population

GLP-1RA Peptides
Challenging to Scale

> $30 billion Sales[4]

>5 million in US

OZEMPIC semaglutide injection · wegovy semaglutide injection · RYBELSUS semaglutide tablets · mounjaro (tirzepatide) injection · zepbound (tirzepatide) injection

Shortage and supply chain constraints[3]

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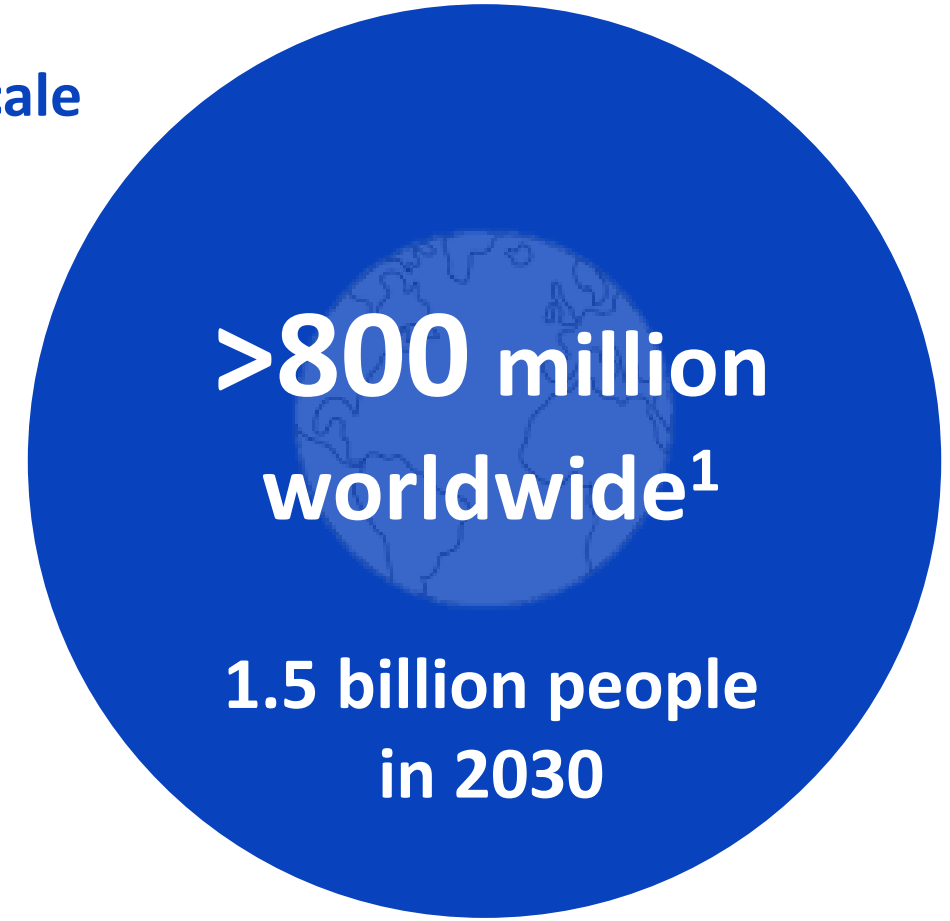
Oral Small Molecules – Ability to Scale

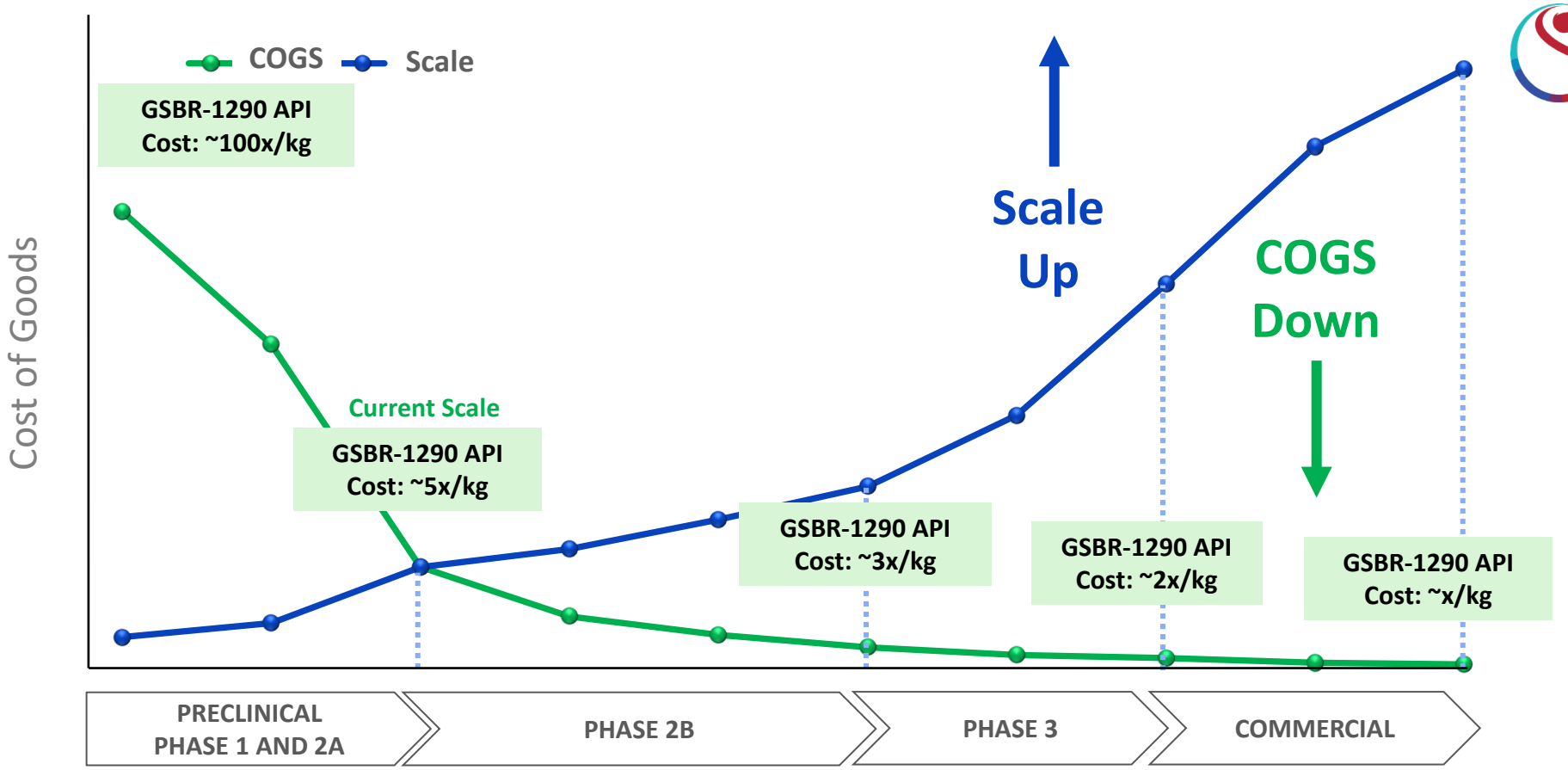
>$100 billion Total Addressable Market



1. 2022 World Health Organization https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight
2. Trust for America's Health Report https://www.tfah.org/report-details/stateofobesity2019/#:~:text=Obesity%20is%20a%20growing%20epidemic,100%20million%20people%20%E2%80%93%20have%20obesity.
3. https://www.fda.gov/drugs/drug-safety-and-availability/drug-shortages
4. 2023 Sales, GlobalData, Drugs database https://www.globaldata.com/media/pharma/glp1-agonists-set-to-become-the-best-selling-drugs-in-2024-says-globaldata/

We Believe GSBR-1290 can be Commercially Manufactured at Scale

- Synthetic route locked and ready for planned batches
- Manufacturing of Phase 2b GMP supply completed[1]
- Current manufacturing capacity of 6,000 tons/year to supply >120M patients



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120 million patients/year

~6,000 tons

1. Based on current clinical study design

We believe GSBR-1290 Obesity Data Position for Potential Best-in-Class Oral GLP-1RA

Best-in-Class Criteria	GSBR-1290 Performance through Phase 2a
Competitive Efficacy	**6.2 – 6.9% placebo-adjusted weight loss at 12 weeks**
Safety	**No liver liability** Large safety window – potential to go higher in dose
Tolerability	**5 – 11% AE-related study discontinuations**
Once-Daily Dosing	**PK supports QD dosing** No fasting requirement
Manufacturable at Scale and Low COGS	**Scalable to potentially serve >120 million patients** GMP batches for Phase 2b studies completed

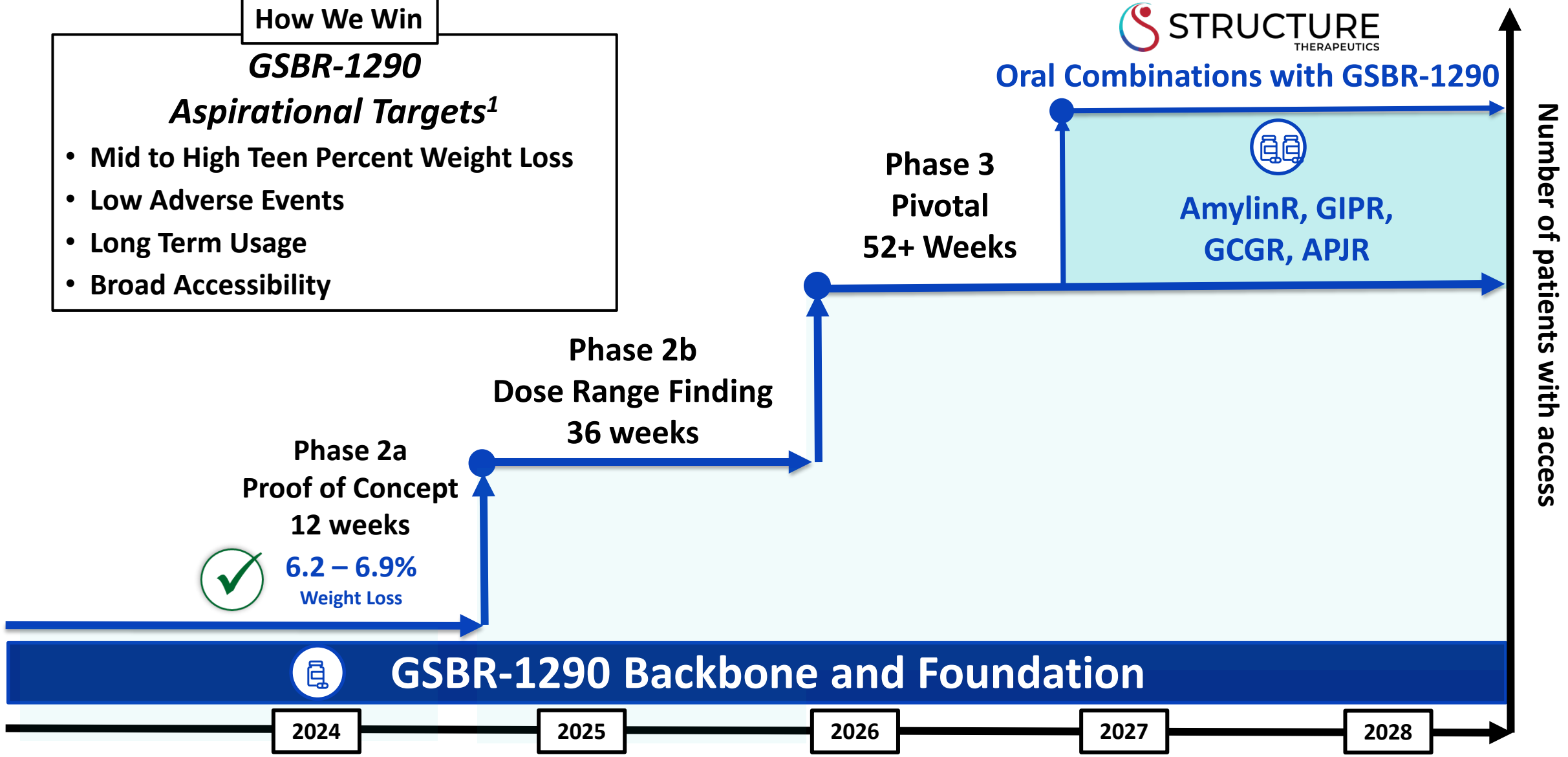
Where does GSBR-1290 fit in the GLP-1RA landscape?

How We Win

GSBR-1290

Aspirational Targets[1]

- Mid to High Teen Percent Weight Loss
- Low Adverse Events
- Long Term Usage
- Broad Accessibility

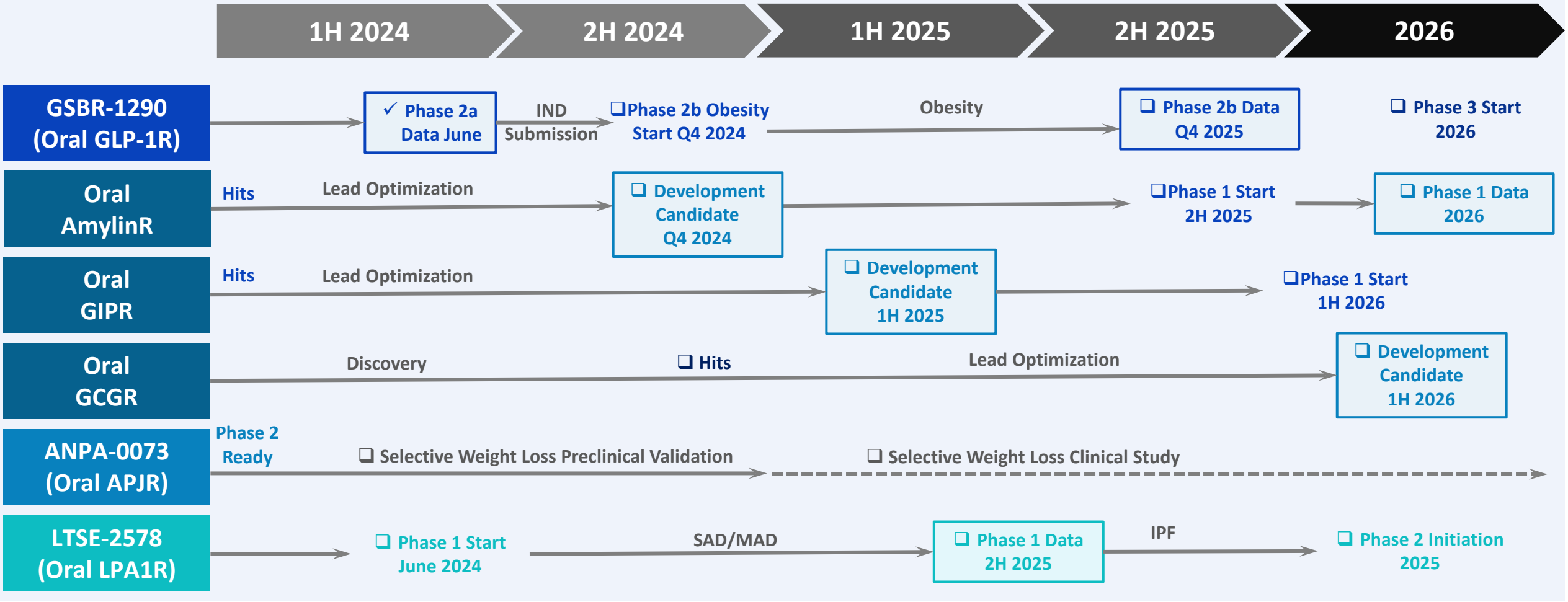


1. These selective targets are aspirational, and are based on assumptions and estimates by the Company that may prove to be wrong. In addition, the results of prior clinical trials and preclinical studies are not necessarily predictive of future results, and any extrapolations based on past results are inherently uncertain and imprecise. Therefore, investors are cautioned to not rely on these aspirational targets.

Strong Momentum with Multiple Potential Catalysts in 2024 – 2026

~$436.4 million in cash[1] as of 3/31/2024 expected to fund operations through 2026

Anticipated Milestones – Entire Oral Small Molecule Portfolio



1. Cash includes cash, cash equivalents and short-term investments

STRUCTURE THERAPEUTICS

Thank you

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